

illustrated example, the infotainment head unit **112** includes hardware (e.g., a processor or controller, memory, storage, etc.) and software (e.g., an operating system, etc.) for an infotainment system (such as SYNC®, MyFord Touch®, SmartDeviceLink®, and AppLink® by Ford®; Entune® by Toyota®; IntelliLink® by GMC®; etc.). Additionally, the infotainment head unit **112** displays the infotainment system on, for example, the center console display.

[0025] As illustrated in FIG. 1, the infotainment head unit **112** includes a display **120** and a speaker **122**. Additionally, a microphone **124** in and/or near the infotainment head unit **112**. The display **120** presents an interface (e.g., a billboard interface **300** of FIG. 3) to provide information to the user **104**. In the illustrated example, the display **120** is a touch screen that enables the user **104** to select button(s), hyperlink(s), etc. to provide additional information to the user **104**. Further, the speaker **122** provides audio output information to the user **104**, and the microphone **124** receives audio input information (e.g., instructions for the infotainment head unit **112**) from the user **104**.

[0026] The communication module **114** of the vehicle **100** is to communicatively couple to the mobile device **102**. For example, the communication module **114** communicatively couples to a communication module (e.g., a communication module **412** of FIG. 4) of the mobile device **102**. In the illustrated example, the communication module **114** is a short-range wireless module that includes a wireless transducer to wirelessly communicate with the mobile device **102** and/or another device when that device is within a broadcast range of the communication module **114**. The short-range wireless module includes hardware and firmware to establish a connection with the mobile device **102**. In some examples, the short-range wireless module implements the Bluetooth and/or Bluetooth Low Energy (BLE) protocols. The Bluetooth and BLE protocols are set forth in Volume 6 of the Bluetooth Specification 4.0 (and subsequent revisions) maintained by the Bluetooth Special Interest Group.

[0027] Additionally, the GPS receiver **116** identifies a location of the vehicle **100**. For example, the GPS receiver **116** is utilized to track the location of the vehicle **100** as the vehicle **100** travels along a set of directions from one location to another location. Further, the camera **118** of the vehicle **100** is utilized to collect, receive and/or otherwise obtain image(s) of object(s) that are adjacent to an exterior of the vehicle **100**. For example, the camera **118** may be utilized to obtain an image (e.g., an image **200** of FIG. 2) of the advertisement **110** of the billboard **108**.

[0028] As illustrated in FIG. 1, the mobile device **102** of the user **104** is located within an interior of the vehicle **100** as the user **104** drives the vehicle **100** toward the billboard **108**. The mobile device **102** is communicatively coupled to the communication module **114** of the vehicle **100** and includes a billboard segmenter **126** that enables the display **120** of the vehicle **100** to present a billboard interface to the user **104**.

[0029] In operation, the mobile device **102** collects, receives and/or otherwise obtains an image of the advertisement **110** of the billboard **108**. For example, the mobile device **102** includes a camera (e.g., a camera **408** of FIG. 4) to obtain the image of the billboard **108**. The billboard segmenter **126** identifies one or more segments of the image. For example, the billboard segmenter **126** includes an image recognition system that identifies the one or more segments utilizing a deep neural network algorithm. The billboard

segmenter **126** determines whether the identified segment(s) are associated with events that correspond to the advertisement **110** of the billboard **108**. Further, the billboard segmenter **126** generates a billboard interface to be presented to the user **104** based on the image of the advertisement **110** of the billboard **108**. The billboard interface generated by the billboard segmenter **126** includes hyperlinks that link the events to the corresponding segments. Upon generating the billboard interface, the mobile device **102** sends the billboard interface to the communication module **114** of the vehicle **100**.

[0030] The display **120** of the vehicle **100** presents the billboard interface that is received from the mobile device **102** to the user **104**. Further, the vehicle **100** includes a billboard linker **128** that detects when the user **104** selects a segment of the billboard interface. In examples in which the display **120** is a touch screen, the billboard linker **128** detects selection of a segment of the billboard interface when the user **104** presses a portion of the display **120** that corresponds to the segment. Additionally, or alternatively, the billboard linker **128** detects selection of a segment via audible instructions of the user **104** that are received via the microphone **124** of the vehicle **100**. Upon detecting selection of a segment of the billboard interface, the billboard linker **128** initiates the corresponding event via the corresponding hyperlink. For example, in response to the user **104** selecting a segment associated with an address to a store location, the display **120** presents visual directions and/or the speaker **122** of the vehicle provides audible directions to the address.

[0031] Further, in the illustrated example, the billboard **108** is an electronic billboard that presents advertisements via an electronic display. As illustrated in FIG. 1, the billboard **108** includes a billboard processor **130** that controls which image is presented on the billboard **108**. The billboard **108** also includes a communication module **132** that is communicatively coupled to the billboard processor **130**. In operation, the billboard processor **130** may facilitate the billboard **108** in selecting and/or personalizing advertisements to be presented based on preferences and/or characteristics of users approaching the billboard **108**. As the vehicle **100** approaches the billboard **108**, the communication module **114** of the vehicle **100** and/or a communication module (e.g., the communication module **410**) of the mobile device **102** communicatively couples to the billboard processor **130** via the communication module **132** of the billboard **108**. For example, the communication module **132** receives information from the mobile device **102** and/or the vehicle **100** that are associated user preferences and/or characteristics of the user **104**. The communication module **132** sends the user information to the billboard processor **130**, and the billboard processor **130** selects and/or personalizes an advertisement (e.g., the advertisement **110**) to display as the vehicle **100** approaches the vehicle based on the user information associated with the user **104**.

[0032] In other examples, the camera **118** of the vehicle **100** may obtain or collect the image of the advertisement **110** as the vehicle **100** approaches the billboard **108**. In some such examples, the vehicle **100** includes the billboard segmenter **126** that generates the billboard interface for the display **120** of the infotainment head unit **112**. In other such examples, the billboard linker **128** identifies segment(s) of the advertisement **110**, determines event(s) associated with the identified segment(s), and generates the billboard inter-